DIAGNOSIS AND TREATMENT OF CHEMORESISTANT TUMORS

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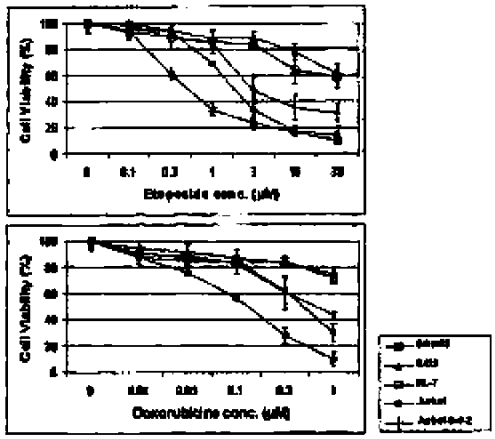
Inventor(s):
Applicant(s):
Classification:
- international: ***G01N33/574; A61K35/26; A61K39/395; A61K45/00; A61P35/00; A61P43/00; C07K16/28; C12Q1/00; C12Q1/04; C12Q1/25; C12Q1/68; G01N33/15; G01N33/50;*** **G01N33/574; A61K35/26; A61K39/395; A61K45/00; A61P35/00; A61P43/00; C07K16/18; C12Q1/00; C12Q1/04; C12Q1/25; C12Q1/68; G01N33/15; G01N33/50;** (IPC1-7): C12Q1/68; A61K35/26; A61K39/395; A61K45/00; A61P35/00; A61P43/00; C12Q1/04; C12Q1/25; G01N33/15; G01N33/574
- European: C07K16/28A28; C12Q1/68M6B; G01N33/50D2B
Application number: JP20040513743T 20030618
Priority number(s): US20020390256P 20020618; US20030456585P 20030321; WO2003US19492 20030618

Also published as:
WO03106974 (A2)
WO03106974 (A3)
EP1551990 (A2)
EP1551990 (A4)
CA2489726 (A1)
more >>

Abstract not available for JP 2005529616 (T)
Abstract of corresponding document: **WO 03106974 (A2)**

This invention provides methods of identifying compounds that selectively target cancer cells that have defects in specific oncogenic pathways.



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特表2005-529616
(P2005-529616A)
(43)公表日　平成17年10月6日(2005.10.6)

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C12Q 1/68	C12Q 1/68	A	4B063
A61K 35/26	A61K 35/26		4C084
A61K 39/395	A61K 39/395	D	4C085
A61K 45/00	A61K 39/395	N	4C087
A61P 35/00	A61K 45/00		

審査請求 未請求　予備審査請求 未請求　（全 35 頁）　最終頁に続く

(21)出願番号　特願2004-513743(P2004-513743)
(86)(22)出願日　平成15年6月18日(2003.6.18)
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(86)国際出願番号　PCT/US2003/019492
(87)国際公開番号　WO2003/106974
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(33)優先権主張国　米国(US)
(31)優先権主張番号　60/456,585
(32)優先日　平成15年3月21日(2003.3.21)
(33)優先権主張国　米国(US)

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最終頁に続く

(54)【発明の名称】化学療法耐性腫瘍の診断および治療

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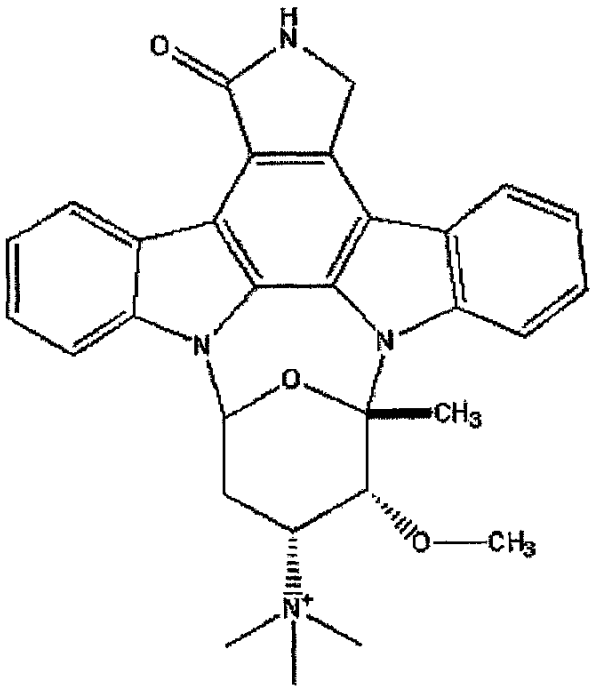
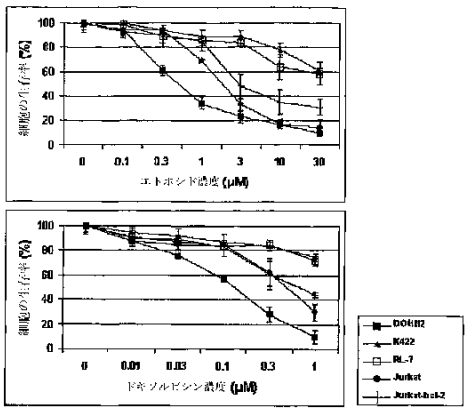
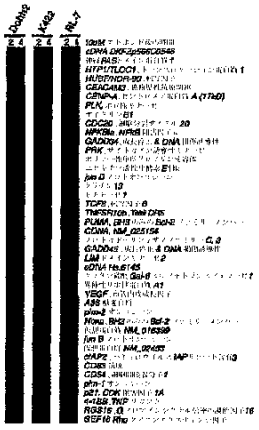

H
N
O
N
N
O
CH3
O
CH3
N+

ホスファチジルイノシトール-キナーゼ関連
H.s.マイトジェン活性化蛋白質キナーゼキナーゼキナーゼ5(MAP3K5), mRNA
JIK:STE20様キナーゼ
H.s MAPキナーゼと相互作用するセリン/スレオニンキナーゼ1(MKNK1), mRNA
ヒトKIAA0930蛋白質mRNA、部分的cds
H.sマイトジェン活性化蛋白質キナーゼ活性化蛋白質キナーゼ2(MAPKAPK2)、転写物変異型1、mRNA
ホスファチジルイノシトールキナーゼ関連
H.sマイトジェン活性化蛋白質キナーゼキナーゼ5(MAP2K5)
Q03533セリン/スレオニン蛋白質キナーゼ
Q62862セリン/スレオニンファミリーの蛋白質キナーゼ関連
H.s.サイクリン依存性キナーゼ6(CDK6), mRNA
H.s.アクチビンA受容体タイプII様1(ACVRL1), mRNA
H.s. Gardner-Rasheedネコ肉腫ウイルス(v-fgr)オンコジーンホモログ(FGR), mRNA
ヒトTGFβ誘導性核蛋白質TINP1 (TINP1) mRNA、完全cds.
H.s骨格筋、受容体チロシンキナーゼ(MUSK), mRNA
ヒトCGI-53蛋白質mRNA、完全cds.
H.s ベンズイミダゾール非阻害出芽1(酵母ホモログ)(BUB1), mRNA
H.sリボゾーム蛋白質S6キナーゼ、90kD、ポリペプチド5(RPS6KA5), mRNA
H.s CDC様キナーゼ2(CLK2)転写物変異型phclk2, mRNA
2117904リボースリン酸ピロホスホキナーゼ関連
H.s v-yes-1ヤマグチ肉腫ウイルス関連オンコジーンホモログ(LYN), mRNA
MAPK7: マイトジェン活性化蛋白質キナーゼ7
H.s. p21/Cdc42/Rac1-活性化キナーゼ1(酵母Ste20関連) (PAK1), mRNA
H.s v-aktマウス胸腺腫ウイルスオンコジーンホモログ1 (AKT1), mRNA
MAPK9: マイトジェン活性化蛋白質キナーゼ9
H.s.マイトジェン活性化蛋白質キナーゼキナーゼキナーゼキナーゼ4(MAP4K4), mRNA
H.s MEKキナーゼ1 (MEKK1) mRNA、部分cds
ヒトCGI-06蛋白質mRNA, 完全cds.
H.s FAK関連GTPase調節因子
ヒトnemo様キナーゼ(LOC51701), mRNA
H.s CHK1(チェックポイント、S.pombe)ホモログ(CHEK1), mRNA
H.s. tousled様キナーゼ(TLK1), mRNA
CALM3: カルモジュリン3(ホスフォリラーゼキナーゼδ)
プレB細胞白血病転写因子1
ヒトcDNAFLJ20594 fis, クローンKAT08731
ヒト、CG8405遺伝子産物類似、クローンMGC:4022, mRNA, 完全cds
未知の蛋白質キナーゼ
MAP蛋白質キナーゼ関連

染色体III中の仮説47.6 KD蛋白質に中程度に類似
H.s. p21 (CDKN1A)活性化キナーゼ4(PAK4), mRNA
H.s. v-erb-b2赤芽球性鳥白血症ウイルスオンコジーンホモログ3(ERBB3), mRNA
ヒト胚肺蛋白質(HUEL) mRNA, 完全cds.
H.s グリコーゲンシンターゼキナーゼ3α (GSK3A), mRNA
DR4 trail受容体1
Bid
22番染色体にマッピングされるヒト新規遺伝子
H.s Bリンパ系チロシンキナーゼ(BLK), mRNA
カスパーゼ8
Apaf-1
Fadd


細胞の生存率 (%)
エトポシド濃度 (μM)
ドキソルビシン濃度 (μM)
DOHH2
K422
RL-7
Jurkat
Jurkat-bcl-2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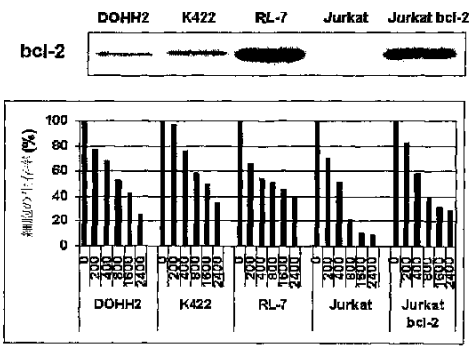
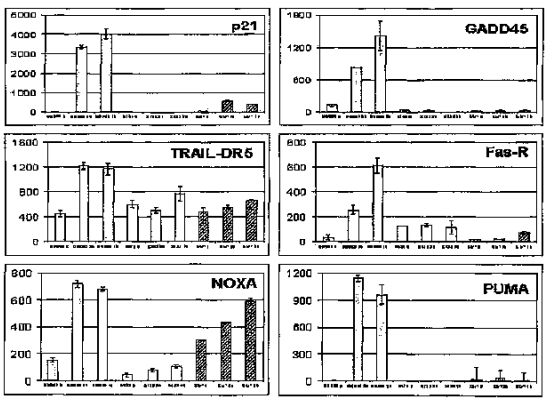
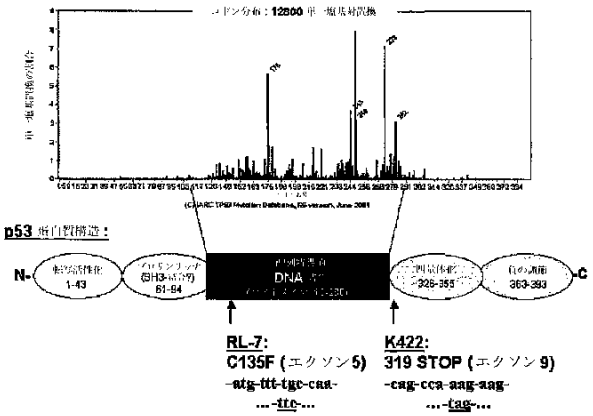
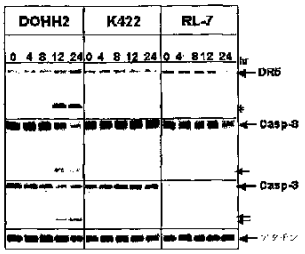
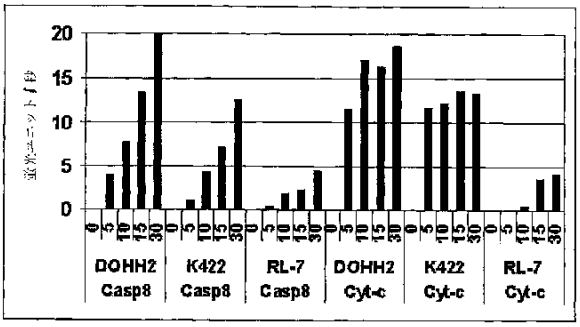
K422
RL-7

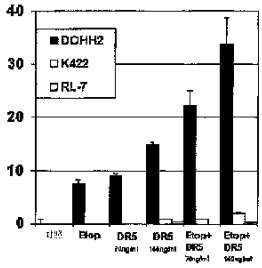

DOHH2
K422
RL-7
Jurkat
Jurkat bcl-2
bcl-2
細胞の生存率 (%)

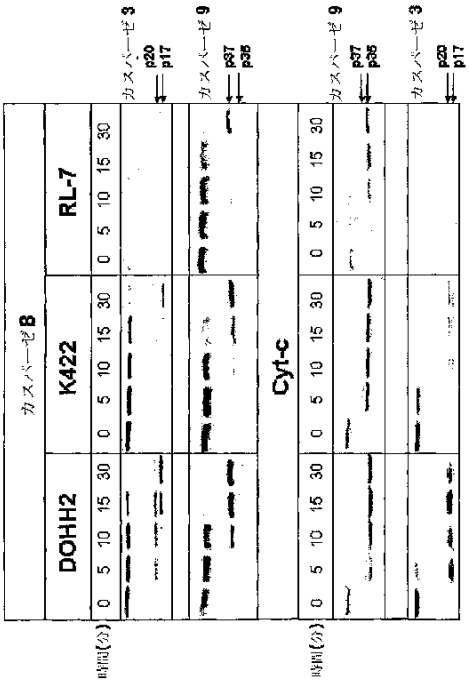

p21
GADD45
TRAIL-DR5
Fas-R
NOXA
PUMA

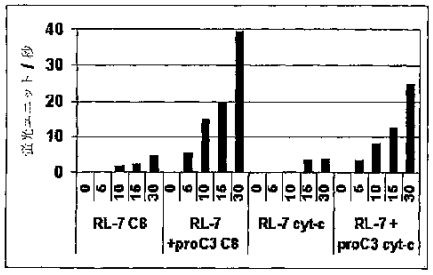

p53 蛋白質構造：
N-
C
RL-7:
C135F (エクソン5)
-atg-ttt-tgc-caa-
---ttc---
K422:
319 STOP (エクソン9)
-cag-cca-aag-aag-
---tag---

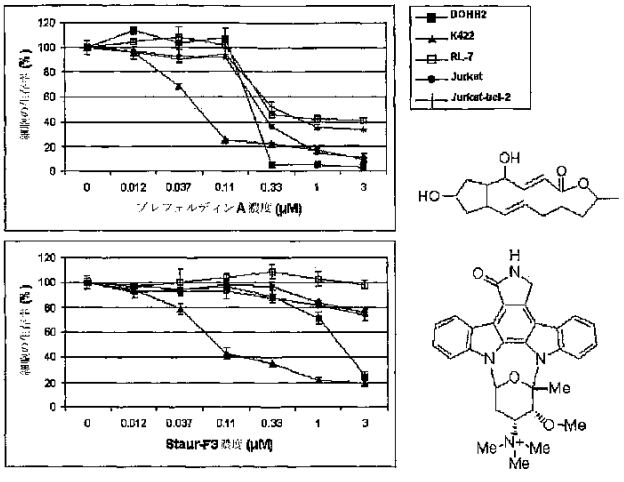

DOHH2
K422
RL-7
DR5
Casp-8
Casp-3

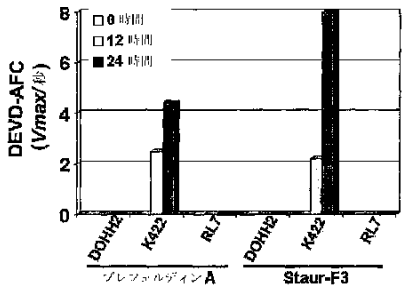

蛍光ユニット/秒
DOHH2 Casp8
K422 Casp8
RL-7 Casp8
DOHH2 Cyt-c
K422 Cyt-c
RL-7 Cyt-c

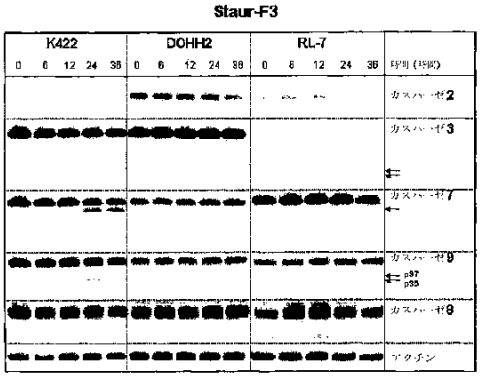

DOHH2
K422
RL-7
Etop
DR5

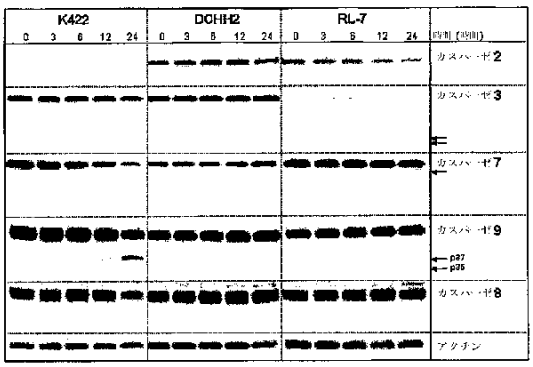

カスパーゼ3
カスパーゼ9
Cyt-c
DOHH2
K422
RL-7
時間(分)

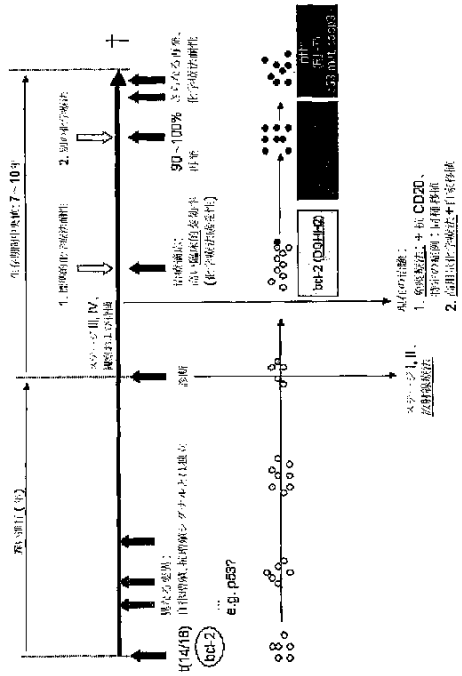

蛍光ユニット/秒
RL-7 C8
RL-7 +proC3 C8
RL-7 cyt-c
RL-7 + proC3 cyt-c

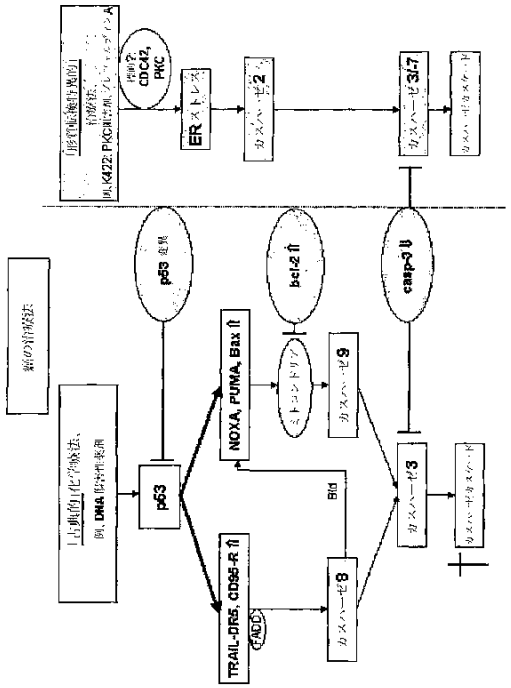

DOHH2
K422
RL-7
Jurket
Jurket-bcl-2
ブレフェルディンA濃度 (μM)
Staur-F3濃度 (μM)
HO
OH
Me
Me
Me


DEVD-AFC
(Vmax/秒)
0時間
12時間
24時間
DOHH2
K422
RL7
プレフェルディンA
Staur-F3


Staur-F3
K422
DOHH2
RL-7
時間 (時間)
カスパーゼ2
カスパーゼ3
カスパーゼ7
カスパーゼ9
カスパーゼ8
アクチン


プレフェルディンA
K422
DOHH2
RL-7
時間 (時間)
カスパーゼ2
カスパーゼ3
カスパーゼ7
カスパーゼ9
カスパーゼ8
アクチン


bcl-2 (DOHH2)
bcl-2 (RL-7)


p53
CDC42, PKC
ERストレス
カスパーゼ2
カスパーゼ3/7
bcl-2
caspg-9
NOXA, PUMA, Bax
ミトコンドリア
カスパーゼ9
Bid
TRAIL-DR5, CD95-R
FADD
カスパーゼ8
カスパーゼ3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US03/19492

A. CLASSIFICATION OF SUBJECT MATTER
IPC(7) : C12Q 1/00; G01N 33/48; A61K 49/00, 39/00
US CL : 435/4; 436/64; 424/9.1, 184.1
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 435/4; 436/64; 424/9.1, 184.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
MEDLINE, USPATENTS, WIPO

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EVDOKIOU, A. et al. Chemotherapeutic Agents Sensitize Osteogenic Sarcoma Cells, But Not Normal Human Bone Cells, To APO2L/TRAIL-Induced Apoptosis. Int. J. Cancer. 01 June 2002, Vol. 99, pages 491-504, especially page 501.	1, 5, 7, 11
X	WANG, Q. et al. UCN-01: a Potent Abrogator of G2 Checkpoint Function in Cancer Cells With Disrupted p53. Jnl. Natl. Cancer Inst. 17 July 1996, Vol. 88, No. 14, pages	21-23
X --- Y	WO 99/09165 A1 (IDUN PHARMACEUTICALS, INC.) 25 February 1999 (25.02.1999), pages 28-31, 37	1, 11, 24, --- 2-3
A	WO 98/41629 A2 (HUMAN GENOME SCIENCES, INC.) 24 September 1998 (24.09.1998) entire article.	1, 12, 24, 39
X	WO 96/31603 A2 (THE REGENTS OF THE UNIVERSITY OF MICHIGAN) 10 October 1996 (10.10.1996) entire article, especially page 40.	43-45, 47-49

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:
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"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
23 March 2004 (23.03.2004)	15 APR 2004
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Gary B. Nickol Ph.D. Telephone No. 703-308-0196

Form PCT/ISA/210 (second sheet) (July 1998)